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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,725	12/04/2001	Narayan Venkatasubramanyan	020431.0884	1188

53184 7590 10/13/2006
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EXAMINER

VAN DOREN, BETH

ART UNIT PAPER NUMBER

3623

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/004,725

Applicant(s)

VENKATASUBRAMANYAN ET AL.

Examiner

Beth Van Doren

Art Unit

3623

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 October 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1,4-8,11-15 and 18-43.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☒ Other: See Continuation Sheet.

Continuation of 13. Other: For the purposes of appeal, Applicant's remarks will be entered and the status of claims is listed above.

Advisory Action

1. The following Advisory Action is in response to the after final communications received 10/02/2006.
2. Applicant's arguments with regards to the 35 USC 103 rejections based on Kennedy et al. (U.S. 6,047,290) in view of Hillier et al. (Introduction to Operations Research) have been fully considered, but they are not persuasive. In the remarks, Applicant argues that (1) Kennedy et al. is disqualified as prior art in accordance with 35 USC 103 and MPEP 706.02(l)(1) because the subject application and the Kennedy et al. patent were both at the time of the invention owned by and/or assigned to the same entity (i2 Technologies US, Inc.), (2) with regards to claim 8, Hillier does not teach or suggest a linear programming optimizer coupled to a database operable to generate a linear programming problem for a supply chain network, (3) with regards to claim 8, Hillier does not teach or suggest approximating the linear programming problem, by discretizing the time variables and by relaxing the constraints to yield a relaxed constraint, (4) as per claim 8, Hillier does not teach or suggest calculating an optimized supply chain plan for the approximated linear programming problem, and (5) that Examiner has not shown the required teaching, suggestion, or motivation to combine the references and that the purported advantage relied on by Examiner is nowhere in the references.

In response to argument (1), Examiner respectfully disagrees. The current application claims a priority date 04/02/2001. The patent date of the prior art reference of Kennedy et al. is 04/04/2000, which qualifies this reference as prior art under 35 U.S.C. 102(a). Thus, Kennedy et al. is not able to be disqualified under 35 U.S.C. 103(c). See MPEP 706.02(l). Therefore, the rejection under 35 USC 103(a) is proper and Kennedy et al. is still relied upon as prior art.

In response to arguments (2)-(4), Examiner respectfully disagrees. First, Kennedy et al. was relied upon to teach the system components of a planning system optimizer coupled to the database and operable to use an algorithm for the supply chain network and calculate an optimized plan. See figure 1, column 1, lines 39-65, column 2, lines 25-32, 39-52, and 55-65, and column 3, lines 20-45, column 6, lines 15-25, which discloses stored data being accessed and wherein planning algorithms are used on the supply chain network. See figure 2, column 2, lines 39-65, and column 3, lines 7-32 and 40-65, column 5, lines 40-60, column 6, lines 1-15, and column 7, lines 30-50, wherein an optimized supply chain is produced by the planning system, where a quantity of items is described for each buffer based on time values.

Kennedy et al. further discloses, as set forth in the previous office action, buffers and time variables (i.e. delivery time, timing) associated with the buffers and store items.

Hillier et al. was relied upon to teach that the algorithm used is a generated linear programming problem, approximating this linear programming problem by discretizing variables to yield a plurality of discretized variables and by relaxing the constraint to yield a relaxed constraint, and calculating an optimized supply chain plan for the approximated linear programming problem. This calculated plan is an approximated solution. See specifically page 511, section 1, page 512, section 1, page 513, sections 1-2, page 517, section 1, of Hillier et al. wherein finite variables are used in a programming problem. In order to increase the ease of solving the problem, a linear programming (LP) relaxation problem is used, wherein a constraint of the problem is relaxed. See also Hillier et al., page 513, section 1-2, page 514, page 517, page 519, section 1, wherein an optimal solution is found for the supply plan for the approximated linear programming problem. See specifically page 25, section 1, page 26, section 1, page 67,

Art Unit: 3623

section 1, which discloses such a supply plan. Therefore, examiner reasserts that the combination of Kennedy et al. in view of Hillier et al. teaches the limitations of claim 8.

In response to argument (5), Examiner respectfully disagrees. Examiner explicitly stated the required teaching, suggestion, or motivation to combine the references in the rejections set forth in the previous office action. Examiner expressly provides the teaching and suggestion to combine in the following statement:

Since both Hillier et al. and Kennedy et al. are concerned with supplying limited resources among competing activities (i.e. supplying customers) is the best possible way. Kennedy et al. discloses building a model of this supply problem, the model including items that flow through the supply chain and buffers that model the flow of these items, the input into buffers being referred to as producers and the output flows from buffers referred to as consumers. A planning system and algorithms are used to analyze this inflow and outflow of data to obtain an optimal supply chain plan. It would have been obvious to one of ordinary skill in the art at the time of the invention to use LP relation techniques (and branch and bound techniques) in order to increase the ease of obtaining an optimal solution by creating a model that allows one to divide and conquer by dividing a large problem into its smaller subproblems and conquering these subproblems individually. See page 515, sections 1 and 2, and page 517, of Hillier et al. See also figure 2, column 3, lines 40-60, and column 7, lines 30-50, which describes analyzing the model in pieces through upstreaming and downstreaming.

Thus, examiner sets forth the teaching and suggestion to combine as page 515, sections 1 and 2, and page 517, of Hillier et al and also figure 2, column 3, lines 40-60, and column 7, lines 30-50, which describes analyzing the model in pieces through upstreaming and downstreaming.

Thus, since examiner set forth that both Hillier et al. and Kennedy et al. are concerned with supplying limited resources among competing activities in the best possible way possible, and also that both references disclose techniques to divide and conquer (i.e. analyze in pieces),

Examiner has established a motivation to combine.

Art Unit: 3623

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737.

The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lwd
bvd

October 10, 2006

Beth Van Doren
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AU 3623